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AMAZON.COM, INC.

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

CEIVA OPCO, LLC, a Delaware Limited Liability Company,

Plaintiff,

v.

AMAZON.COM, INC., a Delaware Corporation,

Defendant.

Civil Action No.: 2:22-cv-02709-AB-MAA

NOTICE OF MOTION AND MOTION OF DEFENDANT AMAZON.COM, INC. FOR SUMMARY JUDGMENT OF INVALIDITY UNDER 35 U.S.C. § 101 AND NON-INFRINGEMENT

Date: January 12, 2024
Time: 10:00 a.m.
Judge: Andre Birotte Jr.

NOTICE OF MOTION

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that on January 12, 2024 at 10:00 am, or as soon thereafter as counsel may be heard, defendant Amazon.com, Inc. ("Amazon") will and hereby does move this Court pursuant to Federal Rule of Civil Procedure 56 for summary judgment that the asserted claims of U.S. Patent Nos. 6,442,573 ("'573 patent"), 9,203,930 ("'930 patent"), 9,654,562, and 9,124,656 ("'656 patent") are invalid and not infringed.

Plaintiff Ceiva Opco, LLC ("Ceiva") asserts claims 2, 6, and 19 of the '573 patent, claims 1-8 and 15 of the '930 patent, claims 1-2 and 5-8 of the '656 patent, and claims 1, 4, 11, 16-17, and 20 of the '562 patent. All asserted claims are directed to patent-ineligible subject matter as a matter of law and thus invalid under 35 U.S.C. § 101. There is also no genuine dispute that Amazon does not infringe at least claim 2 of the '573 patent, claims 1-8 and 15 of the '930 patent, claims 1-2 and 5-8 of the '656 patent, and claim 17 of the '562 patent, because, among other things, Ceiva accuses an authentication protocol that it disclaimed during prosecution of the asserted patents.

Amazon bases this motion on this notice, the supporting memorandum and points and authorities, the supporting Statement of Uncontroverted Facts ("SUF"), the reply in support thereof, the arguments of counsel, and any other evidence that may be presented at the hearing on this matter.

Pursuant to Local Rule 7-3, counsel for Amazon conferred with counsel for Ceiva regarding this motion on November 15, 2023, and Ceiva opposes the relief sought by this motion.

Dated: November 22, 2023

Respectfully submitted,

FENWICK & WEST LLP

By: */s/ Ravi R. Ranganath*

Ravi Ranganath

Counsel for Defendant
AMAZON.COM, INC.

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Ex. No.	Description
1.	Order re Amazon's Motion to Dismiss the First Amended Complaint in *Ceiva Logic, Inc. v. Amazon.com, Inc.*, No. 2:19-cv-09129-AB (C.D. Cal. July 1, 2020) (Dkt. No. 48) ("101 Order")
2.	Order Granting Amazon's Motion to Dismiss for Lack of Subject Matter Jurisdiction in *Ceiva Logic, Inc. v. Amazon.com, Inc.*, No. 2:19-cv-09129-AB (C.D. Cal. March 16, 2022) (Dkt. No. 206)
3.	Opening Expert Report of David B. Johnson, Ph.D.
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6.	Rebuttal Expert Report of William C. Easttom II, Ph.D.
7.	Ceiva's Fifth Amended and Supplemental Interrogatory Responses
8.	Deposition Transcript of Dean Schiller (Volume 1)
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10.	Deposition Transcript of Stephen A. Edwards, Ph.D. (Volume 2)
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12.	File History of U.S. Patent No. 9,203,930
13.	U.S. Patent No. 6,721,713 ("Guheen")
14.	Draft Specification for The SSL Protocol Version 3.0
15.	Specification for RFC 5246 - The TLS Protocol Version 1.2
16.	Specification for RFC 8446 - The TLS Protocol Version 1.3
17.	Tim Dierks, *Security Standards and Name Changes in the Browser Wars*, May 23, 2014
18.	Stephen Jan, Paolo de Dios, and Stephen A. Edwards, *Porting a Network Cryptographic Service to the RMC2000: A Case Study in Embedded Software Development*
19.	*Push Servers: The Intranet Channel*, 156 PC Magazine, June 10, 1997

Dkt. No.	Description
28-1	U.S. Patent No. 6,442,573
28-2	U.S. Patent No. 9,203,930
28-3	U.S. Patent No. 9,654,562
28-4	U.S. Patent No. 9,124,656

[1] Exhibits 1-19 are attached to the Declaration of Ravi R. Ranganath filed concurrently herewith.

I. INTRODUCTION

Ceiva asserts four patents in this case. The patents are related, share an identical specification, and claim the idea of a digital picture frame that automatically accesses a remote data repository. In the earlier case between Amazon and another Ceiva entity, the Court concluded, after reviewing three of the four asserted patents (the fourth was not asserted in that case), that this idea was abstract and comparable to the age-old practice of compiling photos to display in succession, such as on a film projector. The Court declined to hold the patents invalid on the pleadings alone, however, citing a potential fact dispute as to whether the claims recite an inventive ordered combination. The parties have now developed a complete factual record, and no genuine dispute remains: the asserted claim limitations do not recite an inventive concept, individually or in combination. Instead, the claims recite existing, well-understood, routine, and conventional components and functional limitations for which the patents provide no technological solution. Under a long line of Federal Circuit cases, such patents are invalid under § 101 as a matter of law.

Not only are the claims invalid, but Amazon does not infringe them. For nearly all asserted claims, Ceiva accuses server authentication—a client device verifying the identity of a server with which it communicates—using the TLS security protocol. But it is undisputed that TLS is substantively identical to the predecessor SSL protocol that Ceiva expressly disclaimed from the scope of the patents during prosecution. Ceiva's infringement claims therefore fail as a matter of law.

II. THE ASSERTED PATENTS

Ceiva asserts four related patents in this case: Nos. 6,442,573 ("'573 patent"), 9,203,930 ("'930 patent"), 9,654,562 ("'562 patent"), and 9,124,656 ("'656 patent") (collectively, the "asserted patents"). The patents share a common specification and list the same inventors.[2] (*See* Dkt. No. 28 (First Am. Compl.) ¶ 63.) The '573 patent

[2] Citations to the specification of the '573 patent thus apply to all asserted patents.

was filed on December 10, 1999, and the other three patents claim priority to it. Ceiva asserts claims 2, 6, and 19 of the '573 patent, claims 1-8 and 15 of the '930 patent, claims 1, 4, 11, 16-17, and 20 of the '562 patent, and claims 1-2 and 5-8 of the '656 patent. In its prior Order, the Court found claim 19 of the '573 patent, claim 1 of the '930 patent, and claim 1 of the '562 patent representative of all claims of those patents. (Ex. 1, *Ceiva Logic, Inc. v. Amazon.com, Inc.*, No. 2:19-cv-09129 AB (MAA) ("*Ceiva I*"), Dkt. No. 48 ("101 Order") at 2 n.4.)

The patents describe the idea of displaying images on a digital picture frame, which long predates the patents. ('573 patent at 6:31-41; *see* 1:45-2:14, Fig. 1.) According to the specification, both traditional picture frames and existing digital picture frames required users to be in close proximity to add new photos. (*Id.* at 1:19-34, 2:15-17.) The specification purports to address this problem by taking existing digital picture frames and adding generic internet connectivity so that the frames can automatically download photos from and be controlled by remote servers, like a generic computer would do. It describes a "frame device" with a "display region (e.g. an LCD) surrounded with a border region modeled to resemble a traditional picture frame," which connects to a network "to periodically obtain image data from a centralized repository and then display that data according to criteria established by an authorized user." (*Id.* at Abstract.)

The asserted claims are each directed to this basic idea. For example, claim 19 of the '573 patent requires a "system for distributing image data" comprising (1) a "digital picture frame" configured to "operate according to preferences defined by a user" and "obtain an update" for its operating software, (2) a "user interface" configured to "obtain image data and said preferences" from the user and provide them to a server system, and (3) a "server system" configured to "periodically relay said image data and said preferences" to the frame when the frame "automatically issues a request for said image data." In other words, the claim is directed to a digital picture frame that connects to a server system to receive photos, user preferences,

and software updates. Claim 2 adds that the server generates "package data" representing image data and user preferences and that the frame is "configured to authenticate"—*i.e.*, verify the identify of—the server system. Dependent claim 6 requires that input to the user interface is permitted only after the server authenticates the user. The claims provide no detail about how to achieve these results—*e.g.*, how the server authenticates the user, how the frame authenticates the server, how the server generates and sends package data, or how the frame obtains software updates.

Claim 1 of the '930 patent similarly requires a picture frame that requests and displays images, authenticates a server system, and obtains software updates. It requires a "digital display apparatus" that carries out a series of functions: "***an image display function*** configured to obtain image data"; "***a remote connection function*** configured to automatically initiate communications" with a server system, "send a request for image data," and "receive in response" a "set of data" with "one or more image data files"; "***an authentication function*** configured to authenticate" the server system "prior to accepting said set of data"; and "***a software update function*** configured to obtain an updated version of said onboard software" and replace the "current version" of onboard software.[3] The claim further requires memory with "authentication information" for the server system and a "unique identifier" for the apparatus. But the claims do not specify ***how*** to carry out any of the recited functions; they merely claim results. For example, they do not specify how the "authentication information" and "unique identifier" are generated or used. The dependent claims add more results with no implementation detail: the "authentication function" sends the unique identifier to the server (cl. 2) and provides "device authentication information" to the server before obtaining image data (cl. 3); an "initialization function" prompts the server to "associate a record" (*i.e.*, a user account) with the apparatus (cl. 4); the apparatus "display[s] an account initialization message" (cl. 5) that "prompts the user to create an account" (cl. 6); the "account initialization

[3] All emphasis added, unless otherwise noted.

message" is "served from" the server (cl. 15); "a timing interval" for the apparatus to "automatically initiate periodic connections" with the server (cl. 7); and a "timing interval" for "periodically selecting an image data file" from memory (cl. 8).

Claim 1 of the '656 patent similarly requires "computer readable instructions" for completing a set of generic steps: "sending a request for image data to said server system," "receiving image data and authentication information" from the server system in response, "authenticating said server system," "storing said received image data" in memory, "displaying said image data," and "receiving" and "automatically updating" the "computer readable instructions" in memory. The claim further requires that the device "instruct" the server—in an unspecified manner—to create a generic web interface for managing the device. ('656 patent cl. 1.) The claims provide no additional detail about any of these steps. The dependent claims add more functional results: "causing image data previously stored in said memory to be replaced with" image data received from the server system (cl. 2), and storing "preference information"—including "an image display list" and "timing information" specifying when to send requests for and display images (cls. 5-8).

Claim 1 of the '562 patent similarly requires computer readable instructions for performing the following steps: "upon connection to a power source and a communications source," sending to the server system a unique device identifier and software version identifier stored in memory; prompting the user to "create an account"; receiving "updated computer readable instructions" from the server system; updating the instructions in memory with the updated instructions; receiving "updated content" from the server system; and displaying the updated content. The claims do not provide an algorithm or specify how any of these functions are performed. The asserted dependent claims of the '562 patent recite minor variations on these steps: sending and receiving unspecified "authentication information" and "metadata" (cls. 11, 16, 17), receiving "location information" of the apparatus (cl. 4), and adding unspecified "new functionality to said apparatus" (cl. 20).

The specification admits that each limitation of the claims long predated the patents. The recited computing components are strictly conventional. ('573 patent at 10:26-11:17 (conventional processor, controller, memory, display, and "telecommunication hardware and/or software").) Existing digital picture frames such as the "Sony PHD A55 CyberFrame" displayed images from a memory on an LCD screen in a variety of resolutions and allowed a user to customize settings "to control how data is displayed," including "varying intervals" for displaying photos in "slide show mode" and "delet[ing] unwanted images or keep[ing] certain images from being deleted."[4] (*Id.* at 1:39-2:34; *see* '573 patent cl. 19 ("digital picture frame configured to operate according to preferences defined by a user"); '930 patent cl. 8 ("timing interval for periodically selecting an image data file from said memory for rendering"); '656 patent cls. 5, 7, 8 ("preference information for controlling the display of said image data," "the timing of displaying said image data," and "an image display list"); Ex. 3, Johnson Op. Rep. ¶¶ 451-76.)

The claimed network communications and computing processes are also strictly conventional. ('573 patent at 2:38-56 (computer networks and techniques for transmitting data between servers and client devices over a network), 2:62-3:23 (email systems that distribute data to designated recipients), 4:13-5:10 ("client pull" techniques, *e.g.*, downloading data over the web), 5:36-6:6 ("server push" techniques where user sets a device to periodically receive data from a server without further user input), 6:6-14 (displaying graphical user interfaces and screensavers), 28:60-67 (existing communication protocols); *see* cl. 19 (user interface "obtain[s] image data and said preferences from said user" and server system "periodically relay[s] said image data and said preferences" to the frame); '930 patent cl. 1 ("a remote connection function configured to automatically initiate communications with said

[4] Traditional picture frames that form a border around an image are also admittedly conventional. ('573 patent at 1:45, cl. 19 ("a border region modeled to resemble a picture frame designed to circumscribe printed photographs").)

first remote server system"), cl. 7 ("periodic connections"); '562 patent cl. 1 ("upon connection to a power source and a communications source, initiating . . . a communications session with said server system via said communications network"); '656 patent cl. 1 ("upon connection to a power source and a communications source and prior to receiving any input from a user, to automatically initiate a communications session with said server system"), cl. 6 (preference information "specifying the timing of sending requests for image data to said server system"); Ex. 3, Johnson Op. Rep. ¶¶ 315-45 (describing network-connected display devices before the patents), 346-84 (describing devices and systems that provided periodic download of image data over a network before the patents).)

The asserted claims therefore recite generic, routine, and conventional computer components and processes for performing generic functions, while adding no detail about how to perform them.

III. THE ASSERTED CLAIMS ARE INVALID UNDER SECTION 101.

The Supreme Court directs courts to take a two-step approach in evaluating patent eligibility. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 217 (2014). First, the court determines whether the claims are directed to an abstract idea. *Id.* If so, the court decides whether the claims add an "inventive concept"—"an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.'" *Id.* at 217-18 (citation omitted). Resolving the legal issue of patent eligibility rarely involves "genuine disputes over the underlying facts material to the § 101 inquiry." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). That is why courts routinely resolve patent eligibility at summary judgment. *See, e.g.*, *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1291 (Fed. Cir. 2018); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351 (Fed. Cir. 2016); *Mrtg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1318 (Fed. Cir. 2016).

A. The Court already found the idea to which the claims are directed abstract and the claimed components non-inventive.

This is the second action brought by a Ceiva entity against Amazon in this Court. The first action was filed by Ceiva's parent company Ceiva Logic, Inc., and involved three of the four patents at issue here: the '573, '930, and '562 patents (the "*Ceiva I* patents"). (Ex. 2, *Ceiva I* Dismissal Order, Dkt. No. 206.) The Court dismissed *Ceiva I* for lack of subject matter jurisdiction because, at the end of fact discovery, Ceiva Logic admitted it did not own the patents it asserted. (*Id.*) Before dismissing that case, the Court considered whether Ceiva's patents claimed ineligible subject matter under § 101. (Ex. 1, 101 Order.)

At *Alice* Step 1, the Court noted that the purported invention "distills down to a digital picture frame able 'to automatically access a remote data repository to obtain updated content without the use of a computer and without any further user input.'" (*Id.* at 9.) This idea "appears to be abstract and thus ineligible for patent protection" because it is comparable to the non-technological abstract idea of "compiling photos to display in succession, such as on a film projector." (*Id.* at 9-10.) The Court noted that the claims recite components "in functional terms, rather than explaining how the components perform the function"—including, for example, claim 1 of the '562 patent, which "requires 'sending by said apparatus said unique identifier,' without explaining how the unique identifier is generated or sent." (*Id.*) The Court concluded that the claims lacked "sufficient specificity" and therefore could not be "directed to an improvement in computer functionality." (*Id.* at 10.)

At *Alice* Step 2, the Court observed that most of the claim limitations, at least as "divorced from the context of a virtual picture frame, were routine and well-known in the art." (*Id.* at 12.) The Court did not find that any single claimed component supplied an inventive concept sufficient to transform the claimed abstract idea into a patentable invention. (*Id.*) The Court nevertheless declined to invalidate the claims, identifying just one potential fact issue underlying the Step 2 inquiry: "whether the

ordered combination of limitations" supplied an inventive concept. (*Id.*) As described below, no dispute precludes summary judgment of § 101 invalidity.

B. At *Alice* Step 1, all four asserted patents claim an abstract idea.

At *Alice* Step 1, courts determine whether the claims recite a specific technological solution for the problem they purport to solve. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). To be non-abstract, computer-implemented claims must be "directed to a specific improvement to computer functionality" and not merely recite "the use of conventional or generic technology in a nascent but well-known environment." *In re TLI Commc'ns LLC Pat. Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016).

Here, as the Court correctly concluded, the claims of the '573, '930, and '562 patents are directed to the abstract "idea of a digital picture frame automatically accessing a remote data repository," rather than any improvement to computing technology. (Ex. 1, 101 Order at 9-10.) Each asserted claim requires a digital picture frame or display device—admittedly well-known at the time the patents—that connects to generic servers to obtain images. Certain claims also require obtaining user preferences or software updates—again, conventional functionality.[5] (*See, e.g.*, '573 patent cl. 19 ("system for distributing image data comprising" a "digital picture frame" and a "user interface" coupled to a server system that allows users to upload photos and set preferences, where the server system provides image data, user preferences, and updates to the operating system); '930 patent cl. 1 ("digital display apparatus" that automatically connects to a server and obtains updates to onboard software and images); '562 patent cl. 1 ("apparatus for displaying content comprising image data" that connects to a server and receives updated content and computer

[5] The Court agreed that claim 19 of the '573 patent, claim 1 of the '930 patent, and claim 1 of the '562 patent were representative of all claims in those patents. (Ex. 1, 101 Order at 2 n.4.) The Court can consider representative claims rather than analyzing each claim separately. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347-48 (Fed. Cir. 2014).

readable instructions for controlling the apparatus).) As the Court observed, this idea is no different than "the abstract idea of compiling photos to display in succession, such as on a film projector," applied to the well-known environment of a digital picture frame. (Ex. 1, 101 Order at 10.)

Certain claims require that the frame device include a "unique identifier" and either authenticate, or be authenticated by, a connected server, or that the user is authenticated. (*E.g.*, '573 patent cl. 2 (frame device authenticates server system), cl. 6 (server system authenticates a user); '930 patent cls. 1, 11 (authentication function to authenticate remote server system), cls. 2, 3 (display apparatus provides authentication information to server system); '562 patent cl. 16 (apparatus transmits authentication information to server system), cl. 17 (apparatus receives authentication information from server system); '656 patent cl. 1 (display device receives authentication from, and authenticates, a server system).) But they recite no specific algorithm for the claimed authentication, such as a way of using a unique identifier to authenticate a device. Merely claiming the ***idea*** of authentication is not a specific technological solution as a matter of law. *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) (claims directed to identifying a message sender using unique identifiers were abstract because they did not recite any "specific details" about how the unique identifier is generated or used), *cert. denied*, 138 S. Ct. 2000 (2018); *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1315–19 (Fed. Cir. 2021) (using unique "identifiers" to retrieve, delete, or control access to data items "doesn't transfigure an idea out of the realm of abstraction").[6]

[6] *See also Elec. Commc'n Techs., LLC v. ShoppersChoice.com, LLC*, 958 F.3d 1178, 1181-83 (Fed. Cir. 2020) (claimed functions of "enabling a first party to input authentication information, storing the authentication information, and providing the authentication information" are abstract and ineligible); *Bridge & Post, Inc. v. Verizon Commc'ns, Inc.*, 778 F. App'x 882, 889 (Fed. Cir. 2019) (claim reciting "receiving network traffic, adding a 'tag' that identifies the user or client computer, and sending that traffic onward" was abstract and ineligible).

The Court's observations regarding the *Ceiva I* patents apply with equal force to the asserted claims of the '656 patent, which shares a common specification with and is related to the *Ceiva I* patents.[7] The claims of that patent are directed to the same basic idea, implemented using a "display device" that connects to generic servers. ('656 patent cl. 1.) Like the *Ceiva I* patents, the '656 patent claims existing, generic, and conventional computer components, operating in a conventional manner: a "display device" that "automatically initiate[s] a communications session" with a server system to request and receive image data, authenticates the server system, stores and displays received image data, obtains software updates, and instructs the server to create a user interface for managing the device. (*Id.*)

Courts have repeatedly concluded that similar results-focused and functional claims are abstract. In *TLI*, the Federal Circuit invalidated claims directed to capturing and storing digital images on a mobile phone, transmitting the images and classification information such as dates and timestamps from the phone to a server, and storing them on the server. 823 F.3d at 610-13. These claims were drawn to the abstract idea of classifying and storing data in an organized manner, and merely used generic mobile phones and servers as an environment to carry out that abstract idea. *Id.* at 611-13. In *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, the Federal Circuit invalidated claims drawn to the abstract idea of "delivering media content to a handheld electronic device." 838 F.3d 1266, 1269-71 (Fed. Cir. 2016). Affinity's claims did "no more than describe a desired function or outcome, without providing any limiting detail that confine[d] the claim to a particular solution to an identified problem." *Id.* at 1269. The claimed components—a customized user interface and streaming requested data over a network—were "claimed generically rather than with the specificity necessary to show how those components provide[d] a concrete

[7] *See CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1288 (Fed. Cir. 2013) (claims from the same patent family that recite the same abstract idea "in the same or similar terms" warrant "similar substantive treatment under Section 101"), *aff'd*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014).

solution to the problem addressed by the patent." *Id.* at 1269, 1271.

Ceiva's claims are no different. They claim a generic frame device that obtains images and software updates[8] from a generic server, and recite no specific improvement to computer functionality. The claims fail Step 1 because they are not directed to "a specific means or method that improves the relevant technology," but are "directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016) (citation omitted).

C. At *Alice* Step 2, the asserted claims recite no inventive concept.

At Step 2, the Court considers "the elements of each claim both individually and 'as an ordered combination'" to determine whether they contain an "'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 217-18, 221 (citation omitted). Neither generic computer technology, nor "well-understood, routine, conventional" components and activities, nor "purely functional" elements can supply the required inventive concept. *Id.* at 221-26 (citation omitted).

As the Court correctly found in *Ceiva I*, the specification itself admits that the various computing and networking components recited in the claims were well-known, routine, and conventional at the time of the patents. (Ex. 1, 101 Order at 13; Ex. 3, Johnson Op. Rep. ¶¶ 461-76.) This is undisputed.[9]

[8] The idea of receiving and automatically updating software is not a technological solution either. *MyMail, Ltd. v. ooVoo, LLC*, No. 2020-1825, 2021 WL 3671364, at *5 (Fed. Cir. Aug. 19, 2021) (claims directed to receiving update data from a server and automatically "updating toolbar software" on a device were abstract and not an improvement in computer functionality); *Intell. Ventures I, LLC v. Motorola Mobility LLC*, 81 F. Supp. 3d 356, 366-67 (D. Del. 2015) (claims reciting sending software updates from remote computer to user station and automatically installing them were "directed to the abstract idea of distributing software updates to a computer").

[9] Indeed, both Dr. Easttom and the patents' inventor Mr. Schiller admit that the claimed hardware components—a processor, controller, memory, and display—were conventional. (Ex. 11, Easttom Dep. at 182:11-13, 191:18-192:9, 215:12-24; Ex. 8, Schiller Dep. at 56:18-58:2, 89:22-23, 90:23-91:16; SUF 8-13, 27, 33.)

The basic computing concepts and processes recited in the claims are also non-inventive as a matter of law. Indeed, courts have routinely found that claims directed to controlling remote devices over a network using conventional computing and networking components fail to recite an inventive concept at Step 2. In *ChargePoint, Inc. v. SemaConnect, Inc.*, the Federal Circuit held that the idea of a server that controls network-connected electric vehicle charging stations by receiving and evaluating charging requests and instructing stations to apply or modify electricity flow is not an inventive concept that transforms the abstract idea of "communicating over a network for device interaction"—a "building block of the modern economy"—into a patentable invention. 920 F.3d 759, 773-74 (Fed. Cir. 2019). The ability to control devices remotely "mirrors the abstract idea itself and thus cannot supply an inventive concept." *Id.*; *see also EscapeX IP LLC v. Block, Inc.*, 652 F. Supp. 3d 396, 403, 406-08 (S.D.N.Y. 2023) (no inventive concept in claimed method of "updat[ing] content on an album stored on a user device, without the user's intervention"); (Ex. 3, Johnson Op. Rep. ¶¶ 285-92, 304-09 (describing conventional processes for client-server communication over a network), 315-45 (describing network-connected display devices before the patents), 346-84 (describing devices and systems that provided periodic download of image data over a network before the patents); SUF 14-20, 22, 33-35.)

Automatically updating software is also non-inventive. *MyMail, Ltd.*, 2021 WL 3671364, at *7 (no inventive concept in steps of "sending information from a user device to a server, determining at the server whether the user device should receive toolbar update data, receiving at the user device the update data," and "updating the toolbar"); *Motorola Mobility*, 81 F. Supp. 3d at 366-67 (no inventive concept in "presenting a directory of software updates at a user station," "selecting and transmitting the desired software updates," and "receiving the requested software updates" from a server); (Ex. 3, Johnson Op. Rep. ¶¶ 422-33 (describing systems that had over-the-network software updates before the patents); SUF 34.)

Courts have also held that claims directed to generic authentication fail to supply an inventive concept at Step 2. In *Prism Technologies LLC v. T-Mobile USA, Inc.*, the Federal Circuit found no inventive concept in claims directed to a server that authenticates a device based on "identity data" such as its "hardware identifier" before providing access to resources, using "generic computer components employed in a customary manner." 696 F. App'x 1014, 1017-18 (Fed. Cir. 2017). In that case, the Federal Circuit found that hardware identifiers associated with devices, and the practice of using them for authentication, were both "conventional" and not an inventive concept. *Id.* The asserted claims here similarly recite that the device and server exchange unspecified "authentication information" and a "unique identifier," but provide no detail as to ***how*** authentication is carried out. (*E.g.*, '930 patent cls. 1, 2; '562 patent cl. 16, 17.) This generic process is non-inventive as a matter of law. *Prism*, 696 F. App'x at 1018; (*see* Ex. 3, Johnson Op. Rep. ¶¶ 385-421 (describing methods for client devices and servers to authenticate each other, including through use of unique identifiers, that predate the patents); SUF 31, 36-37.)[10]

Furthermore, courts have held that claims reciting generic user account creation and management processes lack an inventive concept. *Intell. Ventures I LLC v. AT&T Mobility II LLC*, 235 F. Supp.3d 577, 589-90, 593-94 (D. Del. 2016) (claims directed to "allowing a customer to manage his or her account" ineligible because "facilitating customer access and control over services" is "an inherent part of any provision of services, regardless of whether the services are computer-based"); (*see* Ex. 3, Johnson Op. Rep. ¶¶ 434-48 (describing user account creation and management processes predating the patents); SUF 38.)

Nor do the claims recite an inventive ordered combination. To overcome Step 2, an ordered combination must yield an "unexpected result"—that is, more than the

[10] *See also Universal Secure Reg. LLC v. Apple Inc.*, 10 F.4th 1342, 1352, 1357-58 (Fed. Cir. 2021) (no inventive concept in claim directed a combination of known authentication techniques, including based on "secret information known to the user" and an account identifier), *cert. denied*, 142 S. Ct. 2707 (2022).

expected sum of the individual elements—that "transform[s] the abstract idea into patentable subject matter." *Universal Secure Reg.*, 10 F.4th at 1353, 1357-58. The asserted claims combine conventional computing and networking processes in the order in which they must be performed, to achieve nothing more than the expected result of the sum of the components. (Ex. 3, Johnson Op. Rep. ¶¶ 475-76.) For example, to allow a user to provide images and preferences to the frame device remotely, the user must access a user interface to submit that information. (*Id.*) The user must be authenticated ***before*** it is permitted to access a protected resource such as this user interface, not after. (*Id.* ¶¶ 434-48); *Prism Techs*, 696 F. App'x at 1017-18. To remotely deliver images, preferences, and software updates to the device, it must connect to servers that can provide that information. (Ex. 3, Johnson Op. Rep. ¶¶ 475-76.) In any client-initiated communication—admittedly well-known at the time of the patents—the client device must request data before receiving it. (*Id.*; '573 patent at 4:13-19.) And it was conventional for client devices to authenticate a server before accepting and storing data from the server, not after. (Ex. 3, Johnson Op. Rep. ¶¶ 401, 406; *see* '573 patent cl. 2; '930 patent cl. 1.) There is nothing inventive about this combination. *Universal Secure Reg.*, 10 F.4th at 1351-53.

Ceiva argues that the purportedly "inventive" concept of the patents is "a digital picture frame that initiates requests and receives content[] it needs as determined by the server." (Ex. 7, Ceiva Interrog. Resps. at 143-144.) As an initial matter, this cannot be an inventive concept because Ceiva does not contend that any asserted claim requires the server to determine the content the frame device needs. (Ex. 10, Edwards Dep. (Vol. 2) at 170:23-171:13); *see, e.g.*, *Chargepoint*, 920 F.3d at 769 (inventive concept must be recited in the claim). In any event, it is undisputed that digital picture frames predate the patents. (Ex. 11, Easttom Dep. at 55:22-56:2; SUF 1-6.) And the specification admits that conventional network communication techniques allowed a user to inform a server of the type of data to send to a client

device and how often it should be sent.[11] ('573 patent at 5:46-6:13 (daily stock market quotes sent to client devices); SUF 17-20.) Thus, the idea that a frame device initiates a request for data and relies on the server to determine what content is needed is not inventive. (Ex. 3, Johnson Op. Rep. ¶¶ 473-474); *see, e.g.*, *Bridge & Post*, 778 F. App'x at 893 (claims reciting receiving network traffic at a server, adding a tag that identifies the user, and sending that traffic onward to facilitate targeted advertising were drawn to abstract idea of "transmitting information" and non-inventive).[12]

Ceiva next argues that the patents "eliminated the complexities" of existing digital picture frames by combining "a unique identifier stored in memory, a frame that initiates communications with the server, and a server that automatically distributes updated content to the frame." (Ex. 7, Ceiva Interrog. Resps. at 144.) But, yet again, none of the asserted claims requires a server to "automatically" distribute updated content to the frame device. Even if the claims did recite this specific combination, it would not be inventive. The specification admits that client-initiated communication was conventional and widely used, including in the HTTP protocol used for web traffic. ('573 patent at 4:13-5:10.) It further admits that many broadcast-style information delivery systems were available at the time. (*Id.* at 5:46-6:13.) In these systems, a user would select channels to subscribe to, and the client would periodically request updated content from the server over the Internet at user-configurable intervals, without further user input. (*Id.*; Ex. 3, Johnson Op. Rep. ¶¶ 370-75; SUF 18-20, 33, 35.) There is no dispute that it was also conventional for a computer to store a unique identifier such as its serial number. (Ex. 11, Easttom

[11] Although these broadcast-style techniques are sometimes called "server push," it was common for commercial products at the time to have the client initiate a request to the server at the specified interval, to which the server would respond with updated data. (*E.g.*, Ex. 3, Johnson Op. Rep. ¶¶ 370-75.)

[12] *See Elec. Power Grp.*, 830 F.3d at 1353 (claims that "specify what information it is desirable to gather, analyze, and display" using "conventional, generic technology" lack an inventive concept).

Dep. at 189:2-3; SUF 31.)[13]

Ceiva's purported combination simply applies conventional networking functions—client-initiated communication and storage of a unique device identifier—in the environment of a digital picture frame made of generic computer components. ('573 patent at 10:36-11:17.) The purported result of this combination is an expected one that was widely available as of the date of the patents: the client device receives data from a server that tells the device what to display and how to behave. (*E.g.*, '573 patent at 4:13-5:10, 5:36-6:13.) This is not an inventive concept. (Ex. 3, Johnson Op. Rep. ¶¶ 475-77); *see Bridge & Post*, 778 F. App'x at 893.

D. Ceiva cannot avoid summary judgment with its expert testimony.

None of the opinions offered by Ceiva's validity expert, Dr. Easttom, change the conclusion that the asserted claims are ineligible under § 101. As an initial matter, his testimony is irrelevant at *Alice* Step 1 because that is an issue of law that can be resolved based on the intrinsic evidence alone. *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1373 (Fed. Cir. 2020). Moreover, for many of his opinions, Dr. Easttom simply regurgitates large portions of the patents and asserts in conclusory fashion that they are "directed to novel and unconventional improvements on existing technologies." (Ex. 6, Easttom Reb. Rep. ¶¶ 220-83.) Such conclusory testimony does not create a genuine dispute to prevent summary judgment as a matter of law. *Regents of Univ. of Minnesota v. AGA Med. Corp.*, 717 F.3d 929, 941 (Fed. Cir. 2013); *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 101 (Fed. Cir. 2008).

Dr. Easttom's more specific contentions regarding ineligibility lack merit. He contends the claims are not abstract because they recite a physical device and system in the real world. (Ex. 6, Easttom Reb. Rep. ¶ 279.) This argument fails: the "mere recitation of concrete, tangible components is insufficient to confer patent eligibility

[13] As Amazon's expert Dr. Johnson explains, the concept of a unique identifier that can be used to authenticate a device is as old as computer networking itself. (*E.g.*, Ex. 3, Johnson Op. Rep. ¶¶ 265, 307-09, 387-88.)

to an otherwise abstract idea." *TLI*, 823 F.3d at 612.

Dr. Easttom asserts that the patents enable a digital picture frame[14] to do things it could not do before: communicate with a remote server and update its images, settings, and software without the physical presence of a user. (Ex. 6, Easttom Reb. Rep. ¶¶ 220-21, 251; *see also* ¶ 233 (opining that the patents allow a device to initiate communication with a server "upon connection to a power source and communications source and without any additional input from a user").) But the claims merely recite the idea of initiating communications with a server "automatically"; they do not specify ***how*** to achieve this result. ('930 patent cl. 1; '656 patent cl. 1); *Affinity Labs of Tex., LLC v. DIRECTV*, LLC, 838 F.3d 1253, 1260 (Fed. Cir. 2016) (lack of implementation detail for claimed inventive concept renders claim ineligible). As explained above, the specification ***admits*** that before the patents, devices periodically requested content from a server without a user present.[15] ('573 patent at 5:46-6:13; Ex. 3, Johnson Op. Rep. ¶¶ 290-92, 370-84, 429-33.)

Dr. Easttom also admits that devices predating the patents were designed to self-configure, *i.e.*, required no user input to set up, other than plugging it in. (Ex. 11, Easttom Dep. at 112:18-113:19 (Windows 95 and 98 operating systems were designed to be self-configuring, and successfully self-configured at least "sometimes"); Ex. 3, Johnson Op. Rep. ¶¶ 307-09, 387; Ex. 4, Johnson Reb. Rep. ¶¶ 42-49; SUF 39.) Moreover, the asserted claims recite only the ***result*** of self-configuration, without specifying ***how***. (*E.g.*, '656 patent cl. 1; '562 patent cl. 1.)

[14] Only the '573 patent claims recite a "digital picture frame" or "frame device." ('573 patent, claims 1, 2, 19.) The other three patents claim a generic "display device," "digital display apparatus," and "apparatus." ('656 patent cl. 1; '930 patent cls. 1, 11; '562 patent cl. 1.)

[15] Ceiva did not invent the concept of storing data on remote servers. (Ex. 11, Easttom Dep. at 217:1-3, 237:8-20, 239:13-20; *see* 106:20-22 (systems that distributed image data predate the patents), 139:13-21 (websites were conventional); *see also* Ex. 3, Johnson Op. Rep. ¶¶ 367-84.) Dr. Easttom further admits that prior to the patents, devices running Windows 98 could obtain updated software from a remote server over a network. (Ex. 11, Easttom Dep. at 57:15-58:20.)

The Federal Circuit has found similar claims abstract and non-inventive. *Tranxition, Inc. v. Lenovo, Inc.*, 664 F. App'x 968, 971-72 (Fed. Cir. 2017) (invalidating claims directed to abstract idea of "automatic migration" of user-specified "configuration settings" from one computer to another).

Dr. Easttom next contends that the claims make digital picture frames less expensive because they require less memory and processing power. (Ex. 6, Easttom Reb. Rep. ¶¶ 226, 234.) But the ***claims*** do not identify any particular means of achieving this result; they merely recite conventional memory and processors. Dr. Easttom attributes this purported benefit to the fact that the display device "obtain[s] both image data and preferences for the device ***from network sources***." (Ex. 6, Easttom Reb. Rep. ¶¶ 226, 234, 266.) But the specification admits that "techniques for propagating data to devices connected to the network" were conventional. ('573 patent at 2:47-56.) The idea of a device communicating with a server is a conventional computing feature, not a technical solution. *Chargepoint*, 920 F.3d at 773-74; (*see* Ex. 3, Johnson Op. Rep. ¶¶ 285-92, 304-09, 315-84).[16]

That the claimed frame device obtains photos "without use of a separate computer to transfer such data" is also not a technological solution. (Ex. 6, Easttom Reb. Rep. ¶¶ 225.) The claimed frame device is itself a generic computer—it has a generic processor, memory, and display screen. (*E.g.*, '656 patent cl. 1.) The specification admits that existing digital picture frames had these components, and merely asserts that they did not connect to a network. ('573 patent at 1:39-2:44 (prior art frame had "LCD screen," "memory medium," and "control mechanism" to "control how data is displayed").) Adding generic internet connectivity to a generic computing device is not a technical solution. *Chargepoint*, 920 F.3d at 773-74.

[16] Dr. Easttom asserts that the claimed device obviates the need for additional memory and computing power by saving "authentication information" and a "unique identifier" in memory, allowing it to securely communicate with servers. (Ex. 6, Easttom Reb. Rep. ¶¶ 251, 274.) But the claims recite only generic "memory" and do not specify how data is stored. The generic ability to securely communicate with a server is not a technical solution. *Universal Secure Reg.*, 10 F.4th at 1351-53.

Contrary to Dr. Easttom's assertion, the idea of a device and server authenticating each other does not make the claims any less abstract. (Ex. 6, Easttom Reb. Rep. ¶¶ 228.) The claims only recite the functional result of authentication, without disclosing any specific solution for it. (*E.g.*, '656 patent cl.1 (display device receives "authentication information" from, and authenticates, a server).)[17] Indeed, as Dr. Easttom admits, protocols for clients and servers to verify each other's identity were conventional at the time of the patents. (Ex. 11, Easttom Dep. at 152:22-153:3, 153:17-24, 154:14-23, 243:19-244:5; *see* Ex. 3, Johnson Op. Rep. ¶¶ 385-421; SUF 36-37.)[18] Merely proclaiming that a device authenticates a server is not a technical solution. *Universal Secure Reg.*, 10 F.4th at 1351-53.

Dr. Easttom further asserts that the patents eliminate the need for certain manual user input. (*E.g.*, Ex. 6, Easttom Reb. Rep. ¶¶ 227, 255, 266.) But the asserted claims merely proclaim that the device performs certain functions "automatically" without providing any detail about how to achieve this result. *See supra* Section II. This is not a technical solution. *D&M Holdings v. Sonos, Inc.*, 309 F. Supp. 3d 207, 214 (D. Del. 2018) ("automation of a process" that was performed by humans does not make claims less abstract); *Secured Mail*, 873 F.3d at 910 (making "a process more efficient" does not make claims less abstract).

At Step 2, Dr. Easttom rehashes the same opinions he offered for Step 1, identifying combinations that were purportedly not well-known ***in digital picture frames***. (*E.g.*, Ex. 6, Easttom Reb. Rep. ¶¶ 284-286.) Dr. Easttom's Step 2 opinions fail for the same reasons as his Step 1 opinions. Dr. Easttom asserts in conclusory

[17] Nor is there any improvement to computer functionality in the idea that the device "instruct[s] said server system to create an interface accessible by a web browser for managing behavior characteristics of said display device." ('656 patent cl. 1; *see,* Ex. 6, Easttom Reb. Rep. ¶ 231.) The claims recite this idea in purely functional, result-oriented terms. ('656 patent cl. 1.)

[18] Dr. Easttom further admits that device serial numbers were used as unique identifiers long before the asserted patents. (Ex. 11, Easttom Dep. at 189:2-3; *see* Ex. 3, Johnson Op. Rep. ¶¶ 265, 307-09, 387-88.)

fashion that no prior art ***digital picture frame*** connected to a network, had a remote user interface, and could be controlled remotely. (*E.g.*, *id.* ¶¶ 297, 286.) But novelty and patent eligibility are "distinct"; "a claim for a new abstract idea is still an abstract idea." *Synopsys*, 839 F.3d at 1151.[19] Moreover, setting aside that not all claims even recite a digital picture frame, the specification ***admits*** there is nothing inventive about client-server communication over a network. ('573 patent at 2:45-56.) Ceiva did not invent the concept of storing data on remote servers. (Ex. 11, Easttom Dep. at 237:8-20; SUF 28-29.) Nor is it inventive to assert that a user can control what a device displays by interacting with a generic remote user interface. The claims only recite the ***result*** of a remote user interface without providing any detail about how to achieve it. (*E.g.*, '573 patent cl. 19.) There is no inventive concept in the idea that a digital picture frame made of generic computer components can be controlled remotely using generic communication processes. *Chargepoint*, 920 F.3d at 773-74.

Dr. Easttom's assertion that Amazon did not identify a prior art memory that stored "a combination of image data files, authentication information for a remote server, and a unique identifier for a digital display device," is likewise irrelevant because this argument conflates purported novelty with patent eligibility. (Ex. 6, Easttom Reb. Rep. ¶ 304.) Moreover, the claims provide no detail about the "authentication information" and "unique identifier." The idea of storing these generic data types on a generic memory cannot be an inventive concept. *Elec. Power Grp.*, 830 F.3d at 1353 (no inventive concept in claims that "specify what information it is desirable to gather" using generic technology); (*see* Ex. 3, Johnson Op. Rep. ¶¶ 265-66, 307-09, 387-89, 411, 419-21; Ex. 4, Johnson Reb. Rep. ¶ 45.)[20]

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[19] *See Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1169 (Fed. Cir. 2019) ("merely reciting an abstract idea by itself in a claim—even if the idea is novel and non-obvious—is not enough to save it from ineligibility").

[20] Dr. Easttom's reliance on purported "industry praise" of Ceiva's digital picture frame is unavailing. First, it is undisputed that the Ceiva frame does not practice the '656 patent claims. (Ex. 5, Edwards Rep. ¶¶ 752-756.) Second, the purported

Dr. Easttom contends that a "server system providing operating system updates, images, [and] preferences" to a digital photo frame required complex architecture. (Ex. 6, Easttom Reb. Rep. ¶ 303.) But the patents neither claim nor describe such an architecture; none of the server architecture components Dr. Easttom cites—proxy servers, load balancers, registration server, data repository—are recited in the claims. The claims recite only a generic "server system" or "remote server system," neither of which is inventive. (Ex. 3, Johnson Op. Rep. ¶¶ 285-92.)

None of Dr. Easttom's opinions changes the conclusion that the asserted patent claims are abstract and non-inventive, and thus ineligible as a matter of law.

IV. THE ACCUSED PRODUCTS DO NOT INFRINGE CEIVA'S CLAIMS REQUIRING SERVER AUTHENTICATION.

A. Ceiva disclaimed server authentication using the SSL protocol.

The Secure Sockets Layer protocol ("SSL") is a prior art security protocol that specifies a process for a client to authenticate the server with which it is communicating—that is, verify the identity of the server—among other features. (Ex. 3, Johnson Op. Rep. ¶ 397; Ex. 6, Easttom Reb. Rep. ¶ 928; Ex. 14, SSL 3.0 Specification at DJ00000187; SUF 41.) During prosecution of the '930 patent, the patent examiner rejected the then-pending claims as obvious over U.S. Patent No. 6,721,713 ("Guheen"), which disclosed and incorporated by reference the SSL protocol. (Ex. 12, '930 patent file history ("'930 FH") at Ceiva-A 00006172-73, 6177; Ex. 13, Guheen at 183:17-24, 254:24-36, Figs. 26C, 29B; SUF 42, 45-46.) To overcome this rejection, Ceiva told the patent examiner that the SSL protocol did not meet the server authentication limitations of the pending claims. (Ex. 12, '930 FH at

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"praise" was not related to any technological improvement. It relates to the abstract idea itself—a digital picture frame that automatically obtains images from a server. (*E.g.*, Ex. 6, Easttom Reb. Rep. ¶¶ 489 (the frame "displays [photos] like a slide show")); *Island Intell. Prop. LLC v. TD Ameritrade, Inc.*, No. 21-CV-00273, 2022 WL 17546958, at *5 (E.D. Tex. Sept. 28, 2022) (praise for innovation in "cash management," an abstract idea, does not create a material dispute), *report and recommendation adopted*, 2022 WL 17080738 (E.D. Tex. Nov. 17, 2022).

Ceiva-A 00006196; SUF 47-49.) Ceiva explained:

> As known to those of ordinary skill in the art, SSL is used to encrypt and provide secure communications between two communicating entities "to prevent eavesdropping, tampering, or message forgery" (see, e.g. RFC6101, available, e.g., at http://tools.ietf.org/html/rfc6101). It does not comprise a "an authentication function configured to authenticate said first remote server system prior to accepting said set of data from said first remote server system" as claimed in independent claims 85 and 105.

(Ex. 12, '930 FH at Ceiva-A 00006196 (emphasis in original).) Ceiva then amended one of the two independent claims to add an unrelated "software update function," and the examiner allowed the claims. (*Id.* at Ceiva-A 00006208–6211; SUF 50-51.)

B. Ceiva cannot prevail on infringement because it disclaimed the authentication protocols it now accuses.

The doctrine of prosecution disclaimer forecloses Ceiva's infringement theory as to server authentication. That doctrine "preclud[es] patentees from recapturing," through an infringement claim, "specific meanings disclaimed during prosecution." *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017) (citation omitted); *TMC Fuel Injection Sys., LLC v. Ford Motor Co.*, 682 F. App'x 895, 899 (Fed. Cir. 2017). The doctrine reflects the commonsense notion that a patentee cannot "obtain allowance" of claims by interpreting them narrowly during prosecution and then apply the claims "in a different way against accused infringers." *Aylus*, 856 F.3d at 1360 (citation omitted).

Yet, that is exactly what Ceiva has done here. Several asserted claims require that the frame device "authenticate" or verify the identity of the server system with which it communicates—*e.g.*, to receive user preferences and images. ('930 patent, cls. 1, 11 (memory of the digital display apparatus contains onboard software comprising "an authentication function configured ***to authenticate said first remote server system***"); 573 patent, cl. 2 (the frame device is "configured ***to authenticate said at least one server system***"); '656 patent, cl. 1 (memory of the display device contains computer readable instructions for causing the device "to automatically

initiate a communications session with said server system" which includes a step of "***authenticating said server system***"); '562 patent, cl. 17 (computer readable instructions in the memory of the apparatus "comprise instructions for causing said apparatus to ***receive authentication information from said server system***.").)

Ceiva alleges that the accused Amazon products authenticate servers using the Transport Layer Security ("TLS") protocol, and that the server certificates received by these products during TLS server authentication are the "authentication information" of claim 17 of the '562 patent. (Ex. 5, Edwards Rep. ¶¶ 261, 558, 564, 569.) But TLS is merely a version of the disclaimed SSL protocol. (Ex. 3, Johnson Op. Rep. ¶ 399; SUF 52-54.) In 1999, the Internet Engineering Task Force took over development of new versions of SSL from Netscape, renaming it TLS. (Ex. 4, Johnson Reb. Rep. ¶ 272 & n.20). The name change reflected the change in the governing body, not any technical difference between the protocols. (Ex. 17, *Security Standards and Name Changes in the Browser Wars*; SUF 54.) Indeed, it is ***undisputed*** that SSL and TLS provide nearly identical mechanisms for clients to authenticate servers; Ceiva's expert Dr. Edwards admits this. (Ex. 9, Edwards Dep. (Vol. 1) at 59:23-60:6; Ex. 4, Johnson Reb. Rep. ¶¶ 272-76; SUF 63-68.) In fact, Dr. Edwards himself authored an article describing SSL as "a Transport-Layer Security (TLS) standard." (Ex. 18, Edwards Article at 1.) Ceiva's validity expert, Dr. Easttom, likewise treats SSL and TLS as identical in his analysis of prior art. (Ex. 6, Easttom Reb. Rep. ¶¶ 927-38; SUF 67.) Therefore, there is no dispute that SSL and TLS are the same for purposes of analyzing Ceiva's infringement allegations.

There can also be no reasonable dispute that Ceiva disclaimed server authentication using SSL, and thus TLS as well. During prosecution, the Examiner rejected Ceiva's then-pending claims because Guheen disclosed the claimed server authentication. (Ex. 12, '930 FH at Ceiva-A 00006177; SUF 45-46.) To overcome this rejection, Ceiva stated unequivocally that the SSL protocol, which Guheen described and incorporated, "does not comprise a 'an authentication function

configured to authenticate said first remote server system prior to accepting said set of data from said first remote server system'" as claimed in Ceiva's then-pending claims. (Ex. 12, '930 FH at Ceiva-A 00006196 (emphasis in original); SUF 48.)

Dr. Easttom asserts, in conclusory fashion, that Ceiva disclaimed only the ***encryption*** portion of SSL, and not authentication. (Ex. 6, Easttom Reb. Rep. ¶ 189.) This argument fails and lacks support in the prosecution history.[21] It is undisputed that the Guheen prior art reference, which Ceiva sought to overcome, disclosed and incorporated by reference the ***entire*** SSL standard specification, and which describes in detail both authentication and encryption methods. (Ex. 13, Guheen at 183:17-24; SUF 41, 46.) Indeed, in its response to the Examiner, Ceiva stated that "neither the portions of Guheen cited by the Examiner, ***nor any other portion*** of Guheen, [discloses] the authentication function claimed in" Ceiva's then-pending claims. (Ex. 12, '930 FH at Ceiva-A 00006193; SUF 47-49.) Ceiva even included a hyperlink to the SSL standard specification, which undisputedly includes authentication methods. (Ex. 12, '930 FH at Ceiva-A 00006196; SUF 48.) Therefore, Ceiva categorically disclaimed the entire SSL protocol, including the ***authentication*** methods.

The Federal Circuit's decision in *TMC* is instructive. 682 F. App'x at 898-900. Upon review of the prosecution history, the district court had found that the patentee had disclaimed fuel injection systems that use "pressure regulators" and, based on that disclaimer, granted summary judgment of non-infringement. *Id.* On appeal, TMC argued that "any disclaimer of pressure regulators only applies to a particular type of pressure regulator . . . based on how pressure regulators were purportedly defined during prosecution." *Id.* at 899. The Federal Circuit rejected this argument, citing TMC's "numerous categorical disavowals" that were not limited to any particular type of pressure regulator. *Id.*

The facts here are similar. Ceiva argues that its disclaimer of SSL was narrow,

[21] Dr. Easttom's argument also fails because the pending claims did not claim any encryption function. (Ex. 12, '930 FH at Ceiva-A 00006112, 6114; SUF 43-44.)

citing a few words in the prosecution history, but this does not change its categorical statements that Guheen, and the SSL authentication methods it expressly incorporated, did not disclose the claimed server authentication function. Furthermore, Ceiva admits that the four asserted patents claim the same "capability of server authentication." (Ex. 6, Easttom Reb. Rep. ¶ 127.) Because all four patents share a common specification and are related, the same disclaimer necessarily applies to the server authentication claim limitations of the '573, '562, and '656 patents. *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349-50 (Fed. Cir. 2004) (disclaimer applies to earlier- and later-issued patents with common specification). The Court should grant summary judgment of non-infringement.

C. The accused products do not infringe the '656 patent claims.

The accused products do not infringe any asserted claims of the '656 patent for the independent reason that they do not receive "authentication information" in response a request for image data. Claim 1 of the '656 patent requires: (1) "***sending a request*** for image data to said server system," (2) "receiving image data and ***authentication information*** from said server system ***in response to said request*** [for image data]," and (3) "***authenticating said server system.***" Ceiva maps the claimed "authentication information" to the certificate sent by a server to the accused products during the initial TLS authentication process. (Ex. 5, Edwards Rep. ¶¶ 458, 469, 480.) But it is undisputed that the accused products do not receive this certificate from a server system "***in response to***" a request for image data: as Dr. Edwards admits, the server sends its certificate, and the accused product checks a signature on the certificate to verify the server's identity, ***before*** it sends any request for data to the server. (*Id.* ¶¶ 262-63; Ex. 4, Johnson Reb. Rep. ¶¶ 281-85; SUF 71.) The accused products therefore cannot infringe as a matter of law.

V. CONCLUSION

For the foregoing reasons, Amazon respectfully requests that the Court grant summary judgment of invalidity and non-infringement as set forth above.

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record are being served with a copy of the foregoing document and accompanying exhibits via the Court's CM/ECF system on November 22, 2023.

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